In the Claims

Claims 1 – 7 (Cancelled).

8. (Currently Amended) A method for cleaning a stationary gas turbine unit during operation, wherein the unit comprises: a turbine~~,~~; a compressor driven by the turbine, the compressor having an air inlet~~,~~; and an air inlet duct arranged upstream of the air inlet of the compressor, the inlet duct having an acceleration duct ~~part of the duct~~ adjoining the inlet of the compressor and having decreasing cross section in ~~the~~ an air flow direction in order to ~~give the~~ increase the velocity of the air moving through the acceleration duct, with the air flow having a final velocity at the inlet to the compressor~~,~~; the method comprising:

providing at least one spray nozzle positioned at the acceleration duct; and

introducing a spray of cleaning fluid ~~in~~ within the ~~inlet duct~~ acceleration duct wherein the cleaning fluid is forced through ~~a~~ the at least one spray nozzle under sufficient pressure so as to form a spray of drops that penetrate ~~will enter into~~ the air flow, and with the spray being directed substantially parallel to and in the same direction as the direction of the air flow.

9. (Currently Amended) A method of claim 8, wherein the drops of the spray have a mean size that is less than around 150 μm.

10. (Previously Presented) A method of claim 8, wherein the air velocity is at least 40 percent of the final velocity at the compressor inlet.

11. (Previously Presented) A method of claim 8, wherein the drops of the fluid spray acquire a slip ratio of at least 0.8 at the compressor inlet.

12. (Currently Amended) A method of claim 8, wherein the cleaning fluid is forced through the spray nozzle with a pressure drop that is dependent on the location of the nozzle, and with the

pressure drop within the acceleration duct being greater than a pressure drop occurring in the inlet upstream of the acceleration duct ~~fluid spray is established by forcing the cleaning fluid through a nozzle with a pressure drop ranging anywhere from low to high pressure values~~.

13. (Currently Amended) A method of claim 8, wherein cleaning fluid is forced through the spray nozzle with a pressure drop that is dependent on the location of the nozzle, and with the pressure drop within the acceleration duct being greater than a pressure drop occurring in the inlet upstream of the acceleration duct ~~the fluid spray is established by forcing the cleaning fluid through a nozzle with a pressure drop suitable~~ so that the drops of the spray stay in the air flow, to avoid leaving a liquid film within the inlet duct.

14. (Currently Amended) A method as claimed in claim 8, wherein the fluid spray is established so that a substantial proportion of its drops have a mean size within the interval of around 50-150 μm.

15. (Previously Presented) A method as claimed in claim 14, wherein the fluid spray drops are given a mean size of around 70 μm.

16. (Previously Presented) A method as claimed in claim 8, wherein the fluid spray drops are caused to acquire a slip ratio of at least 0.9 at the compressor inlet.

17. (Currently Amended) A method for cleaning a stationary gas turbine unit during operation, wherein the unit comprises: a turbine~~,~~; a compressor driven by the turbine, the compressor having an air inlet~~,~~; an air inlet duct arranged upstream of the air inlet of the compressor, the inlet duct having a part of the duct adjoining the inlet of the compressor and having decreasing cross section in ~~the~~ an air flow direction defining a high-velocity area in order to give the air flow a final velocity at the inlet to the compressor, the method comprising:

providing one or more spray nozzles positioned at the acceleration duct; and

introducing a spray of drops of cleaning fluid in the high-velocity area of the inlet duct, wherein the cleaning fluid is forced through the one or more spray nozzles and directed substantially parallel to and in the same direction as the direction of the air flow in order that the drops of the spray penetrate and stay in the air flow, to avoid leaving a liquid film within the high velocity area of the inlet duct, and the spray being introduced at a position in the duct section where the air velocity is a percentage of the final velocity at the compressor inlet.

18. (Currently Amended) A method of claim 17, wherein cleaning fluid is forced through the spray nozzle with a pressure drop that is dependent on the location of the nozzle, and with the pressure drop within the acceleration duct being greater than a pressure drop occurring in the inlet upstream of the acceleration duct ~~the fluid spray is established by forcing the cleaning fluid through the one or more spray nozzles with a pressure drop sufficient enough~~ so that the drops of the spray stay in the air flow instead of leaving a liquid film on the walls of the inlet duct.

19. (Currently Amended) A method of claim 18, wherein the drops of the spray have a mean size that is less than around 150 μm.

20. (Previously Presented) A method of claim 18, wherein the air velocity is at least 40 percent of the final velocity at the compressor inlet.

21. (Previously Presented) A method of claim 18, wherein the drops of the fluid spray acquire a slip ratio of at least 0.8 at the compressor inlet.

22. (Currently Amended) A method of claim 18, wherein the ~~one or more nozzles are operated under pressure to provide a~~ spray ~~with~~ comprises ~~sufficient~~ a velocity within the range of about 100 m/s to about 200 m/s to enter the air flow and penetrate the compressor to wet and clean

the rotating and fixed sections of the compressor and avoid substantial contact with the inlet structural supports.

23. (Currently Amended) A system for cleaning a stationary gas turbine unit during operation, wherein the unit comprises:

a turbine~~,~~;

a compressor driven by the turbine ~~and~~ having an inlet~~,~~; and

an air inlet duct arranged upstream of the compressor, ~~and~~ the air inlet duct having an acceleration duct ~~part of the duct~~ adjoining the inlet of the compressor, the acceleration duct ~~and~~ having a decreasing cross section in ~~the~~ an air flow direction in order to ~~give the~~ increase the velocity of the air moving through the acceleration duct, with the air flow having a final velocity at the inlet to the compressor~~,~~; the system comprising:

one or more nozzles positioned in the ~~air inlet~~ acceleration duct;

the one or more nozzles having cleaning fluid forced there through in order to form a spray of ~~droplets~~ drops that penetrate the air flow; and

the one or more nozzles directing the spray of ~~droplets~~ drops in a direction substantially parallel to and in the same direction as the direction of the air flow, with the drops being carried by the air flow to contact one or more compressor blades for cleaning.

24. (Currently Amended) A system of claim 23, wherein the one or more nozzles are operated at a defined supply pressure to produce ~~droplets~~ drops with mean size of around 50 to 150 μm.

25. (Currently Amended) A system of claim 23, wherein the one or more nozzles are operated at a defined supply pressure to produce a spray at a velocity within the range of about 100

m/s to about 200 m/s to allow injection into the compressor inlet air flow, wherein the spray enters the compressor inlet avoiding substantial contact with structural supports or boundaries of the inlet.

26. (Currently Amended) A system of claim 23, wherein the one or more nozzles are operated at a defined supply pressure to provide a spray with sufficient velocity within the range of about 100 m/s to about 200 m/s to enter the air flow and penetrate the compressor to wet and clean the rotating and fixed sections of the compressor.

27. (Currently Amended) A system of claim 26, wherein the cleaning fluid is forced through the spray nozzle with a pressure drop that is dependent on the location of the nozzle, and with the pressure drop within the acceleration duct being greater than a pressure drop occurring in the inlet upstream of the acceleration duct ~~defined supply pressure in which the one or more nozzles are operated is in a range anywhere between low to high pressure values~~.

28. (Currently Amended) A system of claim 23, wherein the air inlet duct comprises a bell_mouth and inner cone structure.

29. (New) A method of claim 8, wherein the drops contact a compressor blade and a compressor stator vane.

30. (New) A method of claim 8, wherein the drops have a mean size that remains substantially constant between about 50 to about 150 μm.

31. (New) A method of claim 17, wherein the drops contact a compressor blade and a compressor stator vane.

32. (New) A method of claim 17, wherein the drops have a mean size that remains substantially constant between about 50 to about 150 μm.

33. (New) A system of claim 23, wherein the drops have a mean size that remains substantially constant between about 50 to about 150 μm.

34. (New) A method of claim 8, wherein the turbine is rotated with the aid of a start motor.

35. (New) A method of claim 8, wherein a fuel is burned in a combustion chamber of the gas turbine unit.

36. (New) A method of claim 17, wherein the turbine is rotated with the aid of a start motor.

37. (New) A method of claim 17, wherein a fuel is burned in a combustion chamber of the gas turbine unit.

38. (New) A system of claim 23, wherein the turbine is rotated with the aid of a start motor.

39. (New) A system of claim 23, wherein a fuel is burned in a combustion chamber of the gas turbine unit.